

## Remarks

In the office action mailed September 27, 2004 claims 1, 2, 10, 11, 20 and 25 were provisionally rejected under 35 U.S.C. §101 as allegedly claiming the same invention as that of claims 1, 9, 20 and 23 of copending Application No. 10/226,720; claims 1, 2, 5 - 8, 10 - 11, 14, 15 and 21 were rejected under 35 U.S.C. §102(b) over U.S. Patent No. 4,929,478 (to Conaghan et al.); and claims 3, 4, 9, 12, 13, 16, 22, 23, 25 and 26 were rejected under 35 U.S.C. §103(a) over Conaghan et al.); and claims 17 - 20 and 24 were rejected under 35 U.S.C. §103(a) over Conaghan et al. in view of U.S. Patent No. 3,762,982 (to Whittington).

The invention is directed to a protector for rope or webbing that satisfies a need that has persisted in the area of rope protection. Prior to the invention, ropes were generally protected either by placing some item (such as a jacket) under the rope, or by fixedly attaching a protector to a rope. See the Declaration of Mark O'Donnell filed herewith (O'Donnell Declaration, ¶¶ 6 and 7). Fixing a protector to a rope, however, is both time consuming and has limited effectiveness if the rope moves significantly during use (such as by stretching). The present invention provides a rope protector that may be easily applied to a rope by not fixed to the rope, and that provides sufficient protection in the event that the outer exposed abrasion resistant surface moves away from the rope. In this event, an underlying abrasion resistant surface becomes exposed, thereby providing the desired protection. It is because of these features that the SPIROLL® brand rope protector has been met with significant commercial success (O'Donnell Declaration, ¶¶ 8 - 11).

Newly presented independent claim 27 is directed to a protector that includes an inner surface adjacent an inner elongated edge of the protector, an outer abrasion resistant surface adjacent an outer exposed edge of the protector, and an intermediate abrasion resistant surface

that is intermediate the inner surface and the outer abrasion resistant surface. The intermediate abrasion resistant surface is not adjacent the inner surface, and each of these surfaces extends substantially along the full elongated length of the protector.

With reference to the example shown in Figure 3 of the present application, the inner surface of the protector is adjacent the elongated edge 12 and contacts the rope 18. The outer abrasion resistant surface is adjacent the elongated edge 14 and is exposed, facing away from the rope 18. The intermediate abrasion resistant surface also faces away from the rope 18 but lies under the end portion of the protector 10 that includes the outer abrasion resistant surface and the elongated edge 14. With reference, for example, to Figure 9 of the present application, the intermediate abrasion resistant portion becomes exposed when the outer abrasion resistant portion is moved away from the rope.

The Conaghan et al. reference discloses a helically wrapped protective sleeve 10 (as shown in Figure 1 - 3) that may be wrapped around wires or hoses (as shown in Figure 5), and a protective sleeve 13 (as shown in Figure 4) that may be placed around wires or hoses (as shown in Figure 6). The protective sleeves 10 of Conaghan et al., however, does not provide a *continuous* protective surface adjacent the wires or hoses, or a *continuous* exposed protective surface along the length of the protective sleeve. The protective sleeve 10 of Conaghan et al., rather, provides a helically wrapped enclosure. The enclosed portion of the underlying wires, therefore, is not covered by a *continuous* protective surface along the elongated length of the protector, and the exposed portion of the outer abrasion resistant surface is also not a *continuous* protective surface.

The Conaghan et al. reference also discloses a protective sleeve 13 shown in Figures 4 and 6 that includes a fabric material in a tubular form, and having a lengthwise slit 14 that

provides opposing side edges (Conaghan et al., col. 4, lines 45 - 66). The side edges either abut one another or overlap one another (Conaghan et al., Abstract, lines 16 - 18). The protective sleeve 13, however, does not provide an intermediate abrasion resistant surface that is *not* adjacent the inner surface. To the extent that the protector 13 shown in Figure 4 could be considered to include an intermediate surface adjacent the inner longitudinal edge on the outer-facing side of the fabric (that underlies the opposing side edge), such a surface clearly *is* adjacent the inner surface - in fact they would be on opposite sides of the fabric material. By requiring that the intermediate surface be not adjacent the inner surface, claim 1 requires a sufficient overlapped area to thereby provide a substantial intermediate abrasion resistant surface. The overlap may even extend two or more full revolutions about inner edge as the introduction of additional layers of material between the intermediate surface and the inner surface will cause these two surfaces to not be adjacent one another.

Moreover, the sleeves 10 and 13 in Conaghan also provide for breakout of the wires from the sleeve as shown in Figures 5 and 6. The Conaghan et al. reference discloses that it is important that such wires or hoses be able to be exited or introduced to the protective sleeve at points along the length of the sleeve (Conaghan et al., col. 4, lines 54 - 66). The provision for such breakout of wires is contrary to the objective of the present invention to *protect* ropes and webbing. Indeed, contamination by dirt and abrasion may occur at the breakout locations in the woven sleeve of Conaghan et al. if the sleeves of Conaghan et al. were to be used as protectors for ropes or webbing.

The Whittington reference discloses a protective wrapping 10 for wrapping around a cable 12 in a helical form providing uniformly spaced apart turns as shown in Figure 1 (Whittington, col. 2, lines 33 - 52). The protective wrapping 10, however, does not provide an

inner surface adjacent an inner elongated edge that contacts the cable 12 along substantially the full length of the protective wrapping 10. The protective wrapping 10 also does not provide an outer abrasion resistant surface adjacent an outer exposed edge of the protective wrapping along substantially the full length of the protected length of the cable. The Whittington reference further does not disclose an intermediate abrasion resistant surface that is intermediate the inner surface and the out abrasion resistant surface. Neither the Conaghan et al. reference nor the Whittington reference discloses, teaches or suggests in combination with one another, a protector as claimed in claim 27.

None of the remaining references of record, nor any combination of the references of record, discloses, teaches or suggests all of the elements of applicants' independent claim 27. Each of dependent claims 2 - 9 and 28 - 32 depends directly from claim 27 and further limits the subject matter thereof. For example, claim 28 requires that the intermediate abrasion resistant surface be located at least one revolution away from the inner surface, and that the outer abrasion resistant surface be located at least two revolutions away from the inner surface. Each of claims 27 and 2 - 9 and 28 - 32 is, therefore, submitted to be in condition for allowance.

New claim 33 is directed to a protector that includes, *inter alia*, an inner surface, an outer abrasion resistant surface, and an intermediate abrasion resistant surface as discussed above, and further requires that the intermediate abrasion resistant surface be located at least one revolution away from the inner surface. Claim 33 also requires that the protector be held on the rope or webbing by an inner radial force, yet permit the rope or webbing to move relative the protector when the protector is in contact with an abrasive surface. For the reasons discussed above with reference to claim 27, the subject matter of claim 33 is not disclosed, taught or suggested by any combination of the Conaghan et al. and Whittington references. Each of claims 12 - 20 depend

directly from claim 33 and further limit the subject matter thereof. Each of claims 12 - 20 and 33, therefore, is submitted to be in condition for allowance.

New claim 34 is directed to a method of protecting an elongated portion of a rope or webbing that includes, *inter alia*, the steps of applying an inner surface adjacent an inner elongated edge of a protector to a protected length of a rope or webbing along substantially the full length of the protected length of the elongated portion of the rope or webbing, wrapping the protector around the protected length of the rope or webbing, and providing an intermediate abrasion resistant surface intermediate the inner surface and an outer abrasion resistant surface. The intermediate abrasion resistant surface is not adjacent the inner surface and extends along substantially the full length of the protected length of the elongated portion of the rope or webbing. The subject matter of claim 34 is not disclosed, taught or suggested by any combination of the Conaghan et al. and Whittington references. Each of claims 35 and 36 depend directly from claim 34 and further limits the subject matter thereof. Each of claims 34 - 36, therefore, is submitted to be in condition for allowance.

Each of claims 2 - 9, 12 - 20 and 27 - 36 is submitted, therefore, to be in condition for allowance. Favorable action consistent with the above is respectfully requested.

Respectfully submitted,



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